WHAT IS CLAIMED IS:

1. A rotary drill bit assembly comprising:

a rotary drill bit body having a top working surface and a slot extending transversely across said top working surface, said slot including a first sidewall, an opposite second sidewall and a first bottom surface extending between said first sidewall and said second sidewall;

an insert positioned within said slot, said insert including a second bottom surface having a U-shaped depression formed therein, said first bottom surface having a U-shaped projection such that said projection supports said depression.

2. The rotary drill bit assembly according to claim 1 wherein a vertical surface portion of said U-shaped projection provides mechanical resistance to displacement of said insert from said slot.

3. The rotary drill bit assembly according to claim 1 wherein the U-shaped depression forms a void that makes said insert approximately between 30%-50% by weight less than an insert of equal dimension without a depression therein.

4. The rotary drill bit assembly according to claim 1 wherein said slot has a plurality of protuberance means for enhancing brazing.

5. The rotary drill bit assembly according to claim 4 wherein said U-shaped projection in said slot has said protuberance means for enhancing brazing.

6. The rotary drill bit assembly according to claim 4 wherein said first and second sidewalls have protuberance means for enhancing brazing.

7. The rotary drill bit assembly according to claim 4 wherein said U-shaped depression is smooth and does not include any sharp corners.

8. The rotary drill bit assembly according to claim 4 wherein the insert is connected to said bit body by brazing.

10. A bit body comprising:

a slot wherein said slot includes a U-shaped projection.

11. The bit body according to claim 10 further comprising:

a cylindrical section; and

a top working surface.

12. The bit body according to claim 11 wherein said top working surface includes a pair of trailing surfaces and compression surfaces.

13. The bit body according to claim 10 wherein said U-shaped projection has a plurality of protuberance means for enhancing brazing.

14. The bit body according to claim 13 wherein the protuberance means are ridges.

15. The bit body of claim 10 wherein said bit body includes a generally cylindrical section having dust collection openings therein.

16. A bit body comprising:

a slot having a plurality of protuberances for enhancing brazing.

17. A bit insert comprising:

a pair of oppositely facing generally parallel side surfaces, a pair of oppositely inclined

top surfaces extending between said side surfaces and a U-shaped depression extending upward from the bottom of said insert.

18. The bit insert according to claim 17 wherein the U-shaped depression forms a void that makes said insert approximately between 30%-50% by weight less than an insert of equal dimension without a depression therein.

19. The bit insert according to claim 17 wherein said U-shaped depression is smooth and does not include any sharp corners.

20. The bit insert according to claim 17 wherein a vertical surface portion of said U-shaped depression provides mechanical resistance to displacement from a bit body.

21. The bit insert according to claim 20 wherein said vertical surface portion is generally between .05-.10 inches in height.

22. A bit body for receiving a bit insert comprising a slot having a bottom surface with a nonlinear irregular shape whereby said bottom surface overall surface contact area is increased for the application of braze.

23. A bit body according to claim 22 wherein said bottom surface includes protuberance means.

24. A bit insert for attachment to a bit body comprising a bottom surface having a nonlinear irregular shape whereby said bottom surface overall surface contact area is increased for the application of braze.